

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: James Wiedle <anjmw@UAA.ALASKA.EDU>
Subject: [6338] (no subject)
Message-ID: <32B0F357.1647@uaa.alaska.edu>

suspend

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Pete Rossi <wa3nna@resuba.com>
Subject: [6335] ** REVISED ** QRP BEACON REPORT
Message-ID: <199612130429.XAA01100@resuba.com>

***** REVISED and CORRECTED QRP BEACON REPORT *****
***** Please destroy all other copies. *****

----- cut here -----

The following is a summary report of the 40 meter QRP beacon which ran over the weekend of November 30 - December 1 1996

This time, beacon reports were received from 52 different QRP-L stations plus 3 reports via QSL cards.

This beacon test made use of the same automatic power sequencer used in the previous beacon sessions. This sequencer permits the transmitter to be set at 6 different power levels. Custom software which drives it simply does the following:

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DO FOREVER
  READ THE TIME OF DAY
  SELECT AND SET THE TX POWER LEVEL (based on minutes past the hour)
  SEND CW MESSAGE FOR THE SELECTED POWER LEVEL
END
```

That's about all there is to it. The power controller has 5 relays which select one of 5 pots used to set 5 different power levels. The 6th power level is produced with with all 5 relays off (uses internal TX pot). Very "low tech" but effective.

The controlling computer is a home-built Motorola 6800 system that I

designed and built back in 1979 (pre-PC days). The software is written in 6800 assembly language. It includes provisions for keying the transmitter at each power level for calibration, setting the power level and code word messages for each level, and setting the CW sending speed.

It was interesting to note that for this beacon, there were fewer reports submitted than the last 80 meter beacon, but about the same as the last 40 meter beacon. But at the same time, the number of reports for receiving the 200 and 630 microwatt codewords were greater. This could be due to either better band conditions (lower noise levels) or simply you guys are getting better at digging out those weak signals .. or some people made some lucky guesses. See my comments below about codeword guessing.

Unfortunately, due to lack of time I have not had a chance to really analyze all of the reports in extreme detail to see if there were any patterns, etc. Due to the rather wide variation of receiving conditions, it is difficult to compare one report to another. A few stations reported peaks at about the same time both days. Most of the reports were received on Saturday.

All in all, reports were received from 18 states + VE3 and VE7

east/northeast : ME NH NY PA MD + VE3
south : AL SC VA NC GA
central/south : TX NM
central/north : OH MI KY TN
central : MO CO
west : VE7

Where was W6 and W7 ?

Many stations reported severe QRM from QSOs in progress on the frequency. I need to find a better frequency, but no matter where I put the beacon there is bound to be QRM at one point or another. Next time I will probably go higher in the band... and hope for the best. I am open to suggestions.

Once again there was a wide representation of rigs and antennas. I wish I could have included more details with the report .. but I would have never finished it.

If anyone is interested in reading all of the details of the reports that were submitted, of which many include multiple reports, and rig/antenna info, I have them saved to a file that I can forward to you. It is about 75K.

Mother nature kill the beacon...

I had planned to let the beacon run through Sunday evening and turn it off before I went to bed.. but Mother Nature and/or the local power company beat me to it by loosing power about 10:50 PM Sunday evening. So, that was that for the beacon. The power was only off for about 10 minutes but after 48+ hours of beacon enough was enough..

Many thanks to all who participated. Certificates confirming reception of your lowest power level codeword received will be available. Jerry, W4UK (ex W4UKU) has once again offered to print them and promises something extra special this time. I hope we can get them out before the end of the year .. if other holiday activities don't get in the way.

I will also provide a special beacon QSL card if you send me one along with an SASE.

I wish I could have replied to each report individually but the volume vs. time available did not permit it. I tried to keep up with them on Saturday but once I stated falling behind there was no catching up.

And now a comment about codewords...

Since this beacon was announced as being a "Thanksgiving weekend" beacon, I thought I would pick a set of codewords that followed some sort of a Thanksgiving "theme" .. and "food" seemed like a logical choice. It seemed like a harmless idea at the time but since the beacon, it was brought to my attention, that having a set of related codewords (ones that are not entirely random) could have some influence on the ability to partial-copy and then possibly guess at some codewords. In otherwords, if a single letter was missed on one of the lower level codewords, then based on the common theme of the codewords already copied, it could make it easier to guess the missing letter(s). I have no idea if this actually happened to any significant degree but it certainly is a possibility.

In light of this, I will make it a point that in any future beacons, the codewords are kept as "random" as reasonably possible so there will be no need to question the likelihood of any significant amount of codeword guessing in the future.

Red Alert! I am considering using 5 letter codewords next time.

And now the report details...

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40 METER QRP BEACON SUMMARY REPORT

2150z Friday November 29 - 0400 Monday December 1 1996

Solar flux / A-index
11/30/96 70 / 5
12/01/96 88 / 4

7021 KHz

WA3NNA/B

16 Northwood Road, Newtown Square, PA 19073

15 miles west of Philadelphia
FM29hx

Lat. 39 59 6 N
Long. 75 22 46 W

Newtown Square coordinates from QRP-L (used in all calculations below)
(I am aprox 1 mile east of this location)

Lat. 39 59 12 N
Long. 75 24 05 W

Transmitter power: The transmitter power was controlled automatically;
set at 6 different levels, 2 minutes at each level,
according to the following schedule. A different
codeword was sent at each power level. Power output
levels 2mW thru 2 watts were measured with an
OHR WM-1 wattmeter and a 50 ohm dummy load. The
630 and 200 uW levels were measured using a TEK 453
scope and dummy load. All other power levels were
verified with the scope.

----- minutes past hour ----- power -reference level-

						(100W)	(2W)
:00-02	:12-14	:24-26	:36-38	:48-50	2 W	-17 dB	0 dB
:02-04	:14-16	:26-28	:38-40	:50-52	200 mW	-27 dB	-10 dB
:04-06	:16-18	:28-30	:40-42	:52-54	20 mW	-37 dB	-20 dB
:06-08	:18-20	:30-32	:42-44	:54-56	2 mW	-47 dB	-30 dB
:08-10	:20-22	:32-34	:44-46	:56-58	630 uW	-52 dB	-35 dB
:10-12	:22-24	:34-36	:46-48	:58-60	200 uW	-57 dB	-40 dB

TX antenna : Full size 40 meter inverted-vee, coax fed,
center @ 50' ends @ 30' running north/south

I have listed the stations copying the codeword grouped at each power level and then listed in order of miles/watt.

Congratulations to the following who successfully copied the codeword "NUTS" at 200 microwatts! Good job!

Special Congratulations to Jim K8IQY, and Roy KC40 for beating the 2 million miles per watt level.

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
K8IQY	Jim Kortge	Felton MI	NOV 30 1615	472	2,360,000
KC40	Roy Boggs	Prestonsburg KY	NOV 30 1534	427	2,135,000
AE4IC	Bob Kellogg	Greenboro NC	NOV 30 1800	361	1,805,000
AA4XX	Paul Stroud	Raleigh NC	NOV 30 1710	340	1,700,000
WZ2T	Rick Sherman	Malone NY	NOV 30 1943	340	1,700,000
KD8JN	Randy Phelps	Canton OH	NOV 30 2111	319	1,595,000
AA1IK	Ernie Gregoire	Canaan NH	NOV 30 1647	307	1,535,000
WA1QVM	Joel Malman	Concord MA	NOV 30 1358	271	1,355,000
WB8YGG	Brad Mitchell	Brockport NY	DEC 01 1859	258	1,290,000
N2JJ	Jim Janack	Galway NY	NOV 30 1500	221	1,105,000
K4CGY	Jim Owen	Mt Airy MD	NOV 30 1935	102	510,000

and Honorable Mention

W4AOS	Bob Binkley	Vienna VA	NOV 30 2338	124	620,000
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Bob reported hearing the codeword "NUTS" but was not sure of the power level and he reported it as 2 mW. He requested that he only be given "credit" for 2 mW but I wanted to at least acknowledge that he *did* hear the codeword at 200 microwatts.

The following successfully copied the 630 microwatt codeword "CORN"

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
K4NK	Les Shattuck	Greenville SC	NOV 29 1220	522	828,571
K8KJ	Jim Kerr	Columbus OH	NOV 30 1808	396	628,571
VE3DNL	Glen Leinweber	Hamilton ON	NOV 30 1410	319	506,349
N3WXI	George Stratemeier	Penn Hills PA	NOV 30 1400	237	376,190
N4EHL	Bob Cronau	Hamton VA	NOV 30 1408	210	333,333
KC1FB	Jim Francoeur	Norwalk CT	DEC 01 1933	130	206,349

The following successfully copied the 2 milliwatt codeword "FORK"

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
VE3JC	John Cumming	Delaware ON	DEC 01 1411	375	187,500
K4EJQ	J.G. Bunky Botts	Blountville TN	NOV 30 1055	445	222,500
KC1DI	David Rowe	Limington ME	NOV 30 1105	353	176,500
AD4ZE	Warren Lewis	Cary NC	NOV 30 1742	343	171,500
W4AOS	Bob Binkley	Vienna VA	NOV 30 2338	124	62,000
W2GUM	Tony Colaguori	Long Branch NJ	DEC 01 1530	78	39,000

The following successfully copied the 20 milliwatt codeword "SOUP"

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
AC5AM	Bob Stolzle	Natchitoches LA	NOV 30 1005	1138	56,900
AA4PC	Craig Tillman	Swainsboro GA	NOV 30 2106	639	31,950
W4UK	Jerry Flanders	North Augusta GA	NOV 30 1616	574	28,700
WB4LZQ	Kim Campbell	Piedmont SC	DEC 01 2100	532	26,600
N2GO	Jim Skalski	Cheektowaga NY	NOV 30 1928	266	13,300
K2ASM	Dick Wolff	Lake Hopatcong NJ	DEC 01 1728	78	3,900

The following was received via QSL card, however no codeword was included.

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
K3KO	Brian Alsop	Henderson NC	NOV 30 1231	300	15,000

The following successfully copied the 200 milliwatt codeword "COOK"

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
K0FRP	Al Dawkins	Aurora CO	DEC 01 0200	1553	7,765
KA5T	Larry Wise	Georgetown TX	NOV 30 0502	1406	7,030
W5TFB	Jack Bryant	College Station TX	DEC 01 0303	1340	6,700
W5HNS	Henry Schneider	Passadena TX	NOV 30 0651	1324	6,620
WB0WQS	Kelly Ellison	Aurora MO	NOV 30 2250	1010	5,050
K4JPN	Steve Ray	Robbins GA	DEC 01 2050	683	3,415
W3IRZ	Mike Branca	Conyers GA	DEC 01 2238	645	3,225

KD8ZG	James Grandle	Reynoldsburg OH	DEC 01	1726	392	1,960
KV2X	Tom Jennings	Rochester NY	NOV 30	1751	239	1,195
KQ4AL	Grover Tolliver	Occoquan VA	NOV 30	xxxx	134	670
W3WZ	Bob Hirsch	New Hope PA	DEC 01	1915	35	175

The following successfully copied the 2 watt spot signal codeword "FOOD"

CALL	NAME	LOCATION	DATE/TIME	MILES	MILES/WATT
VE7SL	Steve McDonald	Mayne Island BC	NOV 30 2325	2403	1,202
K5ON	Gary Cochrell	Albuquerque NM	DEC 01 0050	1735	868
KB0PZD	Bruce Barley	Wichita KS	NOV 30 2101	1187	594
N4SO	Ken Brown	Mobile AL	NOV 29 2341	980	490
WB0CLD	Bill Launer	St Charles MO	NOV 30 1814	808	404
W4DU	Ken Evans	Lilburn GA	NOV 30 xxxx	640	320

Please forgive me if I missed anyone.. or at a particular level.. or otherwise messed up. I had close to 100 e-mail messages of data to sift through. Thanks to all (most) of you who followed my suggested reporting format. It sure made things easier. Please send me any corrections.

Future beacon info...

Paul AA4XX and I have been throwing around the idea of running two beacons in parallel later in December (or January). If all goes well, we may try this the weekend following Christmas, New Years day, or the weekend following. Stay tuned to QRP-L for future announcements.

I will be sending out e-mail with certificate information in a few days.

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Until next time, 73, happy holidays and happy listening,

Pete Rossi - WA3NNA
wa3nna@resuba.com

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: ukii@megsinet.net (ukii)
Subject: [6351] 38 special and TiCK parts?
Message-ID: <01BBE8D0.B68A9E40@randolph2er1-22.megsinet.net>

Hello Gang...

I was reading all the 38 special messages with great interest and wondered if Ori or someone could tell me all the parts NEEDED to get the TiCK keyer installed in the 38 ?
Ok,I know I will need the Tick chip,but anything else?
Seems this kit may be shipped when the local R/S is usually out of everything so I figured I would get a jump on it...

Also,for you antenna guru's...

I have been trying to work Austrailia and New Zealand for quite some time.Never even HEARD them since I restrung my multiband dipole.. Is it possible I put the dipole upsidedown and I can only work countries "up" from here ???

Best 73 de john
N9UKX

Keep a Smile on your face and the Frown wont show!

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Tom Bowman <tbowman@nbn.net>
Subject: [6379] 5-Watt Press info
Message-ID: <2.2.32.19961213220405.006d4d5c@nbn.net>

Thanks for all the help finding the e-mail address for 5-Watt Press.

While I haven't received my copy of "Electronic Data Book for Homebrewers and QRPers"
from 5-Watt Press as of yet, I've messaged them, with help here from several people on the list.

Special thanks go to Paul Harden, the author of the Data Book, who said he would take care of
the problem, if needed.

It's one thing to write a book, but it really takes devotion to the cause to go to the trouble
of helping the reader square things away with the distributor.

Thanks much, Paul.

Just in case anyone else needs the e-mail address, the phone and FAX numbers of 5-Watt Press,
here goes:

<http://qrpbook@aol.com> and the phone numbers are:

phone 303-344-1220 and FAX 1-800-344-0740

While I wait to hear from 5-Watt Press, I got great news from Jim Cates today. Jim took the time to track down my .38 Special order and confirmed he received it.

You all are great.

73,

Tom

WA3REY

Tom Bowman, WA3REY <>< Mount Gretna, PA 17064 tbowman@nbn.net

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: Elmar Vaheer <ekv@intercall.com>

Subject: [6346] 8044ABM Need Sidetone

Message-ID: <32B18C28.4543@intercall.com>

Hi All,

It is not obvious to me where to hook up a side tone on this chip. I have assembled the far circuit board with the chip. Any suggestions would be appreciated.

73 de Elmar, KB2VTN

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: "duane" <duane@flinet.com>

Subject: [6336] a few radio lessons

Message-ID: <199612130448.XAA20438@shell.flinet.com>

ok folks I received several replies from members who were interested in on line lessons. All though I do not feel I am the right person to head the class, but then again there were no takers on the project either. so look out I'm going to tackle this myself (OH BOY!) here's the game plan I'm going to post on my page the start of the design and go from there until we have a working radio. I will update the design

photos as we go along, all email can be sent to me and will be posted by me on another ajoin page for all to read, it will be posted by date and subject matter. When we are through we should have a hell of a book and we should all learn a great deal and we will all most likely be a bit older than when we started. I will cover as much detail as I can and will be looking for input from all as to what was not covered . We will not move to the next section until everyone who is active in this project has an understanding of what we did and why, (to the best I can do anyways) I purchased over 100.00 worth of books yesterday to supplement my current collection. we should get most of the answers from there and from QRP-l. Plan on mistakes and re-designs often after all it's a learning experment. btw once i get the page up the link will be posted on my main page but you can all save me hits on my account by going to the design page site directly once you've been there. so check by often the address is below if there is any problem doing it this way or if you don't have WWW ability let me know and we'll see what can be worked out so you can join in too.

Duane AB4BE

<http://www.flinet.com/~duane>

duane@flinet.com

ab4be@amsat.org

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: dzn1@juno.com (Howard D Rubin)

Subject: [6328] A Holiday Wish

Message-ID: <19961212.214904.10079.0.DZN1@juno.com>

QRP'ers

I recently published this one in our club's newsletter, X-Mitter. I thought some of you might want to read it here. Great bulletin board, this QRP list. I hope to contribute some real QRP news to the vast body of work sooner or later. Until then, have a great holiday season!

Howard Rubin, N3FEL

Penn Wireless Association

Managing Editor, X-Mitter

dzn1@aol.com (Files and X-Mitter Articles)

The Right Frequency for the Holiday Season

Joe Moore, N3OGW

DX'ing, listening and searching for those distant station, is the particular aspect of amateur radio I enjoy. Fortunately, I have been

able to talk to distant stations that have come back to my "CQ" "DX" as far away as New Zealand and Australia

There is, however, another form of DX'ing that makes talking to New Zealand like talking to another person in the same room. It is called SETI, an acronym for Search for Extra Terrestrial Intelligence. It is a scientific endeavor to search the vast universe with huge radio telescopes endeavoring to listen for the possibility of an intelligent signal from some near or distant galaxy. Unfortunately, after several years and millions of frequency possibilities, "CQ, Planet Earth," has yet to be heard. "It is like searching for the proverbial needle in a haystack," commented an MIT Astro-Physicist. Except in this case, the haystack is the Universe!

The ultimate DX, however, occurred before the age of electronics and radio telescopes. It happened almost 2000 years ago in a remote region of the Judean hills in Southern Palestine. It was early winter, a time when snow often visited the highlands of Judea. A group of shepherds had brought their flocks up to these winter pastures. As they sat around the fire, perhaps telling lusty stories, the night sky was suddenly ablaze with the radiance of cosmic messengers turning to the frequency of these Earth-bound inhabitants. What they heard on the celestial band was "Peace on earth and good will to all mankind ...". Could this be the real essence of intelligent life, to promote peace and well-being in one's world? It is unfortunate that SETI missed this one, but the echo still resounds in hearts that are tuned to this heavenly frequency.

What is interesting, the communication (QSO!) to this astonished audience sent then to a stable and a donkey's feed box occupied by an infant, the son of a young peasant couple displaced by the cold decree of a distant emperor. Far less impressive than the heavenly host, but far more powerful in its significance, were the things of common life, not in the glamour of power or prestige of money (often a case of corruption). It is here that this angelic message finds meaning, in our daily lives, at our family meals, among our co-workers and in our occupation. It is here that it is most needed.

May your life be tuned to this heavenly frequency and may the words of peace bring joy to you and your family this holiday season. Yes, SETI, there is intelligent life out there, but it must be heard by the heart tuned to the right frequency. It is a strong signal, you can't miss it! X-M

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: faunt@netcom.com (Doug Faunt N6TQS +1-510-655-8604)

Subject: [6378] Antenna tuner testing

Message-ID: <199612132152.NAA24258@netcom17.netcom.com>

You know, it occurs to me, that if someone wanted to become another QRP-L Hero, they could use the articles by AI1H in the April and June 1995 QST's to evaluate, and report in a standardized format, on the capabilities and efficiencies of various antenna tuners. It doesn't look like this requires a major investment in test equipment, but would be very useful to a lot of people.

We seem to have a plethora of them coming available right now; the W6EMT Zmatch, the LDG autotuner, the Rainbow tuner, and we've had others available like the QRP tuner from MFJ and the NorCal St. Louis Tuner.

In some cases the supplier might be willing to make a sample available, in other cases volunteers might be willing to make units available for testing.

I'd like to see this done sooner rather than a few years from now, so I remove myself from consideration as a volunteer.

73, doug

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: meh@cbsms1.cb.lucent.com (m.e.hartwell)

Subject: [6357] Argonaut 509 complete station for sale

Message-ID: <199612131624.LAA05713@emsr2.emsr.lucent.com>

I hate to do this kinda, but I guess I will anyway.

I am going to try to sell my Ten Tec station. I hope to keep it all together. So on this first go around lets keep it that way.

For Sale

509 Argonaut - near mint, I don't see any scratches but the plastic speaker cover has a couple of dings, and the plastic separator on the top has some dings. All of the wood grain and painted surfaces are free of scratches and marks. The only two mods are: The antenna connector is BNC, and the rec out is changed to provide an output for a digital display, the manual is marked to show this mod.

208 Filter - near mint, like the transceiver.

206 Calibrator - near mint condition.

405 Linear Amp - very good condition, not as good as the transceiver

251 Power Supply - Good condition, Has a scratch on top but works great.

Power cables for everything, non smoking environment, manuals for everything.

Asking \$600.00 and I ship in the continental US.

Now if I don't find anyone interested in the whole package, look for this again offering to break up the set.

Why am I doing this, just crazy I guess. I have also a Ten Tec Triton IV that does all of the things the Argonaut and out board pieces. I want to think about maybe getting some of the neat little kits coming out all over.

Martin (Marty) Hartwell	Home Phone: (614) 855-2470
	Amateur Radio Station KD8BJ
6400 Havens Rd.	Email meh@cbsms1.cb.att.com
Blacklick, Ohio	ICBM: 39 58 N 82 49 W

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Monte Stark <ku7y@sage.dri.edu>
Subject: [6380] BC 221
Message-ID: <Pine.SUN.3.90.961213145404.1138A-100000@vortex.sage.dri.edu>

Hi All,

I have just found a war department technical manual #TM 11-300.

This is dated 20 July 1944.

It is for the SCR-211 series BC 221 frequency meter sets.

If anyone wants it, send email. First to ask, gets!

cul,

73, Ron,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Monte Stark <ku7y@sage.dri.edu>
Subject: [6382] BC 221
Message-ID: <Pine.SUN.3.90.961213153210.1138E-100000@vortex.sage.dri.edu>

Hi Gang,

The BC 221 manual is gone!

Boy, was that fast or what?

73, Ron,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Charles Cashion <ccashion@spdmail.spd.dsccc.com>
Subject: [6352] Communications Quarterly
Message-ID: <199612131456.IAA18090@spd.dsccc.com>

Guys,

I wish to recommend the most recent issue of Communications Quarterly (Fall 1996, volume 6, number 4). I have only worked my way thru one article, and partially thru another, but this issue is great! How many times has one issue of a subscription arrived, and I thumb thru it, and nothing appeals to me? This one does not fall into that category.

I recently posted a note that said

- (1) I wish I could find an email address for ka1stc
- (2) I found an error in Parker Cope's article "A Stable Oscillator".

Bob Lombardi <blombard@iu.net> wrote:

BL>

BL> What errors did you find in GOM's article? I have it on my

BL> desk at work to go through, but the latest "firedrill" has
BL> kept me from even starting it.
BL>

Here is a copy of my email to Terry:

-----begin copy-----

Terry,
I found three small errors in
Parker Cope's article "A Stable Oscillator".

(1) The second equation in the second column on page 51

now:

$$e = R_c I_c + R_c (I_c + I_k) + R_c D$$

should be:

$$e = R_c I_c + R_c (I_c + I_k) + R_c D$$

(2) On page 52, the right column, exactly 3 inches from
the bottom of the printed material

now:

For example, a multimeter, a 6-volt battery, and
a 22-ohm resistor are...

should be:

For example, a multimeter, a 6-volt battery, and
a 22-k resistor are...

(3) I may have to eat crow on this one... I believe this one
does not agree with the usual definitions...
The equation on page 52, left column, about 2+1/4
inches down from the first line of print...

$$Z_t = 6.28 f x Q x L = Q / (6.28 f x C)$$

I am not sure the Q has anything to do with impedance.

-----endof copy-----

QST: If you get a chance, pick up a copy of this issue of
Communications Quarterly. Just the Cope article makes the issue
worth the price. But there is also a stimulating discourse on

J-Pole antennas in the issue (Gary O'Neil, N3G0). I will let you know if I work my way thru the O'Neil article.

Merry Christmas,
Charles Cashion, w5isz, Plano (Dallas is our closest suburb) Texas
ARRL NorTex#116 NorCal#1320 QRP-L#76

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Tom Bowman <tbowman@nbn.net>
Subject: [6342] e-mail address for 5-watt press
Message-ID: <2.2.32.19961213105051.006befdc@nbn.net>

Does anyone have an e-mail address or phone number for
5-watt Press?

I ordered the "Electronic Data Book for Homebrewers and QRPers" in
mid-November and haven't heard from them.

73,
Tom, WA3REY

Tom Bowman, WA3REY <>< Mount Gretna, PA 17064 tbowman@nbn.net

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Dick Schneider <74602.3317@CompuServe.COM>
Subject: [6340] ended fox slump!
Message-ID: <961213063516_74602.3317_EHH76-1@CompuServe.COM>

Finally ended my Fox slump! Logged Cam at 0458 -- got him with 2 minutes to
spare.

72 Dick AB0CD..

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: w8lrm@qtm.net
Subject: [6348] Fox

Message-ID: <199612131336.IAA09934@garcon.qtm.net>

Well, finally I heard one of the furry critters. Thanks to Cam N6GA for my first fox thei season. Siill have not heard any of the novice/tech foxes. I was beginning to think someone had built an rf shield around SW Michigan. Started hearing Cam around 0300z here and by 0338 he finally heard my signal.

Seasons Greetings to all.....
.....de....W8LRM.....Al

MI-QRP #41 QRP-L #532 QRP-ARCI #6524
G-QRP #4152 NOR-CAL #246 CQC #289 (EN62RE)
>From Southwest Michigans Sunset Coast:
Saint Joseph, Berrien County, Michigan !

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Richard Wilkerson <richqrp@pacbell.net>
Subject: [6319] fox?
Message-ID: <32B0A580.3011@pacbell.net>

Is the fox on for tonight? 0100-0300?

--

Rich Wilkerson WD6FDD, Santee, Ca.
NorCal, ARCI, Qrp-L, E.C.R.A.
scQRPions

*****Happy Holidays*****

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "Laura" <sputnik@imt.net>
Subject: [6350] Fri 13th Fox
Message-ID: <199612131346.GAA04146@cu.comp-unltd.com>

Here in Montana we didn't hear the Fox at all for the first hour....no fox....no hunters! That was quite odd. But then, a little after 0330 UTC we heard him. My Bozeman friend, Mal, was able to work him, but the fox was going just a little too fast for me. (must be those 4 legs that let him move so quickly, hi hi) More incentive to get my speed up. I heard Cam make quite a few contacts right at the end...Anyway, that's my report. Merry, Happy, Jolly to all!

73 de KJ7UN, Laura

Laura Marino Lubner - Reese Creek Montana USA

sputnik@imt.net http://www.imt.net/~sputnik
GHRC / ARRL / FISTS / MARC / QRP-L # 790

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "J. Skalski" <jskalski@acsu.buffalo.edu>
Subject: [6370] FS TenTec 556
Message-ID: <Pine.GS0.3.93.961213145950.24647B-100000@orichalc.acsu.buffalo.edu>

This is the younger brother of the scout.
up to 5W out.SSB/CW. Best of the ten tec qrp series (IMHO)
Includes 80,40,20,15,10 meter modules.
Ten Tec microphone.

Also includes Bencher BY-1 black base keyer paddle

Has digital readout, jones filter,built in keyer (standard)

Will ship all for \$485.
mint condition.

73,

Jim N2GO
The Buffalo QRP CONNECTION
ARCI #9013 QRP-L #381
Life member ARRL
jskalski@acsu.Buffalo.EDU

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: wylde@nccn.net (Grover Cleveland, K7TP)
Subject: [6324] FS: an HW-9 and the whole package
Message-ID: <v02130500aed65e65a519@[205.139.74.178]>

Here it is - the entire HW-9 offering as a package deal:

** HW-9 with the WARC bandpack
** The matching HFT-9 tuner
** The matching HM-9 wattmeter

** The matching PSA-9 power supply

AND (are you ready for this) the rare-as-hen's-teeth matching

** SP-99 Speaker

Complete with the HW-8 Handbook which lists the mods available for this radio.

Condition: pretty darn good. There are a few light scratches on the face of the power supply; the HM-9 and HFT-9 were bolted together by the previous owner and I did not separate them (looks ok). As far as I know there are no mods to the radio. Everything works just FB and it has been my main radio for a year.

Please e-mail to this address or leave a message on my office machine at (916) 478-3153.

Price \$435 plus some contribution to UPS. Read my lips - this is a set I am selling and not the individual pieces.

Cheers and thanks to all - Happy Holidays

Grover K7TP

- - -

P. Grover Cleveland K7TP (ex WT6P)

QRP/ARCI 3795 / ARS 101 / Norcal 216 / QRP-L #669

Archaeominiferroequinologist / Fairmont Speeder Pilot

Certified Steam Locomotive Fireman / Certifiably Loony

Can also be found at: cleveland@usa.net or 71213.2741@compuserve.com

<http://ourworld.compuserve.com/homepages/gcleveland/me.htm>

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: "KF4MZD (John Kemker)" <kemkerj@xyzy.net>

Subject: [6333] FS: Ten-Tec Scout 555

Message-ID: <9612130339.AA10909@ponyxprs.atlanta.med.va.gov>

This is a New-In-Box Ten-Tec Scout 555 with the 40-meter module.

Run it QRP at 5W or QRO at 50W, depending on your mood. This rig has NEVER been used. Brand new from Ten-Tec, it goes for \$549, I'll let this one go for \$400, I'll pay shipping.

Email me at kemkerj@xyzy.net if you're interested.

=====
73 de KF4MZD (John Kemker)
kemkerj@xyzzzy.net
EM73vt

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Joe Gervais <vole@primenet.com>
Subject: [6356] FYBO Rules at Website
Message-ID: <199612131558.IAA29958@primenet.com>

Howdy Folks,

Just a reminder for you web surfers that the latest copy of the FYBO rules can always be found at the KI7MN (Bob Hightower) web page, along with Fox schedules, scores, and other neat stuff.

For the FYBO info, go to:

<http://www.dancris.com/~ki7mn/fyborule.html>

I'm always happy to email the stuff out to you, but I'm on digest mode so it may take awhile before I see your request.

"I'm dreaming... of a white... FYBO...
With lots of signals in the air..."

(Apologies to Bing Crosby)

Ho Ho Ho de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: JCoote@aol.com
Subject: [6320] How I became a ham (lengthy rant)
Message-ID: <961212194040_1619112812@emout19.mail.aol.com>

I thought I would add my own Ham story to the thread...

My first exposure to SWL and ham radio was in the mid-1960's when I was a

young boy in grade school. My uncle, a "wanna-be" ham was playing around with receivers such as converted ARC-5s and commercial SWL receivers, large tube monsters with lighted dials. My uncle never obtained his ham license but hearing the receivers is what got my interest. Radio became vastly more interesting than bugging my two younger sisters conversations!

A few years later (In my teens) my grandfather gave me an old Hallicrafters "portable" SWL receiver, one of those with the names of non-existent countries stencilled on the dial. That was followed by a Hammarlund HQ-100A and an E.F. Johnson CB. This was in the late 1960s, before CB was taken over by the proletarian masses. I remember saving to purchase crystals for the CB (only five or so channels) and trying projects in antenna books to improve reception in the Hammarlund.

I finally obtained my novice ticket (WN6AAM) in the mid-1970's. My first "station" was a National NC-156 receiver and a Heath DX-35 transmitter, crystal-controlled and QRO, 30 watts! My first ham QSO was on this station. I must fess up that I was nervous but ended up having a great QSO with a ham in Northern California which may have gone on for two hours. This station was followed by a Heath HW-16. I remained a novice for two years, due to enjoying CW and a young man's budget constraints. In the 70's I upgraded to General (WB6AAM)

In the 1980's I upgraded from General to Advanced. I purchased a complete FT-101E station with matching transverters and everything. I became involved with FM; 146-223-446 Mhz antennas bristling from my Jeep. For several years I was operator/owner of a wide area repeater in Los Angeles, then burned out on repeater lids and tracking down jammers with my RDF... in fact, I framed the sale receipt from the repeater in my office for a few years!

In the late 1980's I was mainly involved with packet and HF (oh... QRP also!) In 1987 I began working as a communications tech with a Southern California police department (great job for a ham!). I was in charge of improving our disaster communications (only one 2-meter radio in the City EOC which nobody knew existed) and starting a police "hamwatch" group.

In the early 1990s I obtained my Extra, and obtained my Vanity Extra (W6CJ) a few months ago.

Like so many other Amateurs I owe a lot to the "Elmers" in my life, whether they were Amateurs or not. I've been a ham approximately 20 years (shudder!) and have changed interests and modes a few times, but radio still has the power to amaze me.

73, Jay
W6CJ

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Vic Rosenthal <rakefet@rakefet.com>
Subject: [6339] How is this possible?
Message-ID: <32B0F678.472C@rakefet.com>

There's an ad in this month's QST (p. 187) that mentions the Force 12 model Z-3 vertical antenna for 20/15/10 meters. They claim that it is 5'4" tall, has an 'efficiency' of 93%, uses no traps or radials, has no power limit and is designed to mount a couple of feet off the ground.

Everything I know about antennas says that this is ridiculous. Has anyone seen this antenna?

My guess: it's like the old Joystick - just a pole, maybe with a loading coil, end fed through a tuner. I'm not sure how they define 'efficiency', though.

Ever looking for a free lunch,

Vic K2VCO

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: KFGlynn@aol.com
Subject: [6368] Hw much pwr out on HW-8?
Message-ID: <961213143950_1555878338@emout13.mail.aol.com>

Hi gang,

What kind of output pwr should I be seeing on a Heathkit HW-8? Currently only seeing about a watt out. Should it in the 2 watt range out?

Tnx for info.

72 Kevin N2T0

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: jdenison@aisp.net (JOEL DENISON)
Subject: [6371] HW8 tuning cap
Message-ID: <19961213203119186.AAA173@slip1.ts-f-merrill.caps.maine.edu>

A friend of mine asked me to ask and see if anyone had a cap. (the main tuning cap for the hw8) or if anyone knew where he could purchase one. I think he was also looking for the value (x-microfarads) of the cap.

His call is N1HKZ and E-Mail jmesseder@somtel.com

If you have any problems with his e-mail address just send the info to me and I will forward that to him or pass it to him on the local repeater.

Thanks good qrp

God Bless

Joel

WA5CVM

Joel Denison

81 High street

Farmington, Maine 04938

jdenison@aisp.net

40 mtr dipole up 40ft

QRP ARCI 4066 NEW ENGLAND QRP 467 QRP-L 765

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: aulllj@future.atlcom.net (louis j aull)

Subject: [6375] Mobile in Miss. QRP Report

Message-ID: <9612132109.AA03494@future.atlcom.net>

To All;

The place: Holliday Inn North, Meridian, MS

The equipment: TAC-1 40m, small power supply, Whiterook paddle, MFJ 971

Tuner, 50' TV

coax solid core, 66' 40M dipole, 40' parachute cord.

The conditions: clear and 70 degrees on 12/10, good DX, overcast and 65 degrees on 12/11 but

heavy QRM and RTTY and broadcast. On 12/12, 3/4" hail, lightning, heavy rain and wind.

The Report:

After arriving at the plant in Meridian on the 11th, I asked the parts buyer, who is a big CB radio fan, if he knew any local hams. He did, they all operate SSB at a KW or better, thats why Amertron is in MS!

Set up to operate at 5PM CST. Made the extra effort to climb on the roof of the Motel to get that extra 2 feet up to about 22'. The few people at the motel are used to me

now anyway. Had to stretch that cheap coax to make it into my room. Poured a couple of cups of water to sip on and started to CQ at about 6:00PM. Much to my enjoyment, K2UP was there waiting and said his QRP rig was down but still wanted MS qso. From then on, I seldom had to call CQ. I stayed on 7.040 and even had to work some QRP pileups! (2 deep!). There's where that extra 2' really pays off. Half of the contacts were QRO and were simply intereseted in any good qso. Got a few best happy hollidays, so started the merry xmas back. Worked most states east of the Mississippi River, and Texas, but no luck to the west. The band folded up at about 9:30 PM and I stopped. All told, 37 QSO's in 3 hours. Not a contest burner, but a lot of fun.

The TAC-1 was set at 24wpm, and at the end the Whiterook paddle was giving up the ghost, running letters together and getting harder and harder to use. I like the paddle, but wore it out. I tried to smooth out the screw heads with some sandpaper and rotate the center post for some fresh contact area the next day, but now I know I will have to make my own design paddle for portable.

Started at about 7:00PM on 12/11, the QRM was bad from the start. Had to move around to stay out of QRO, RTTY, broadcast, and plain noise. Worked 10 QSO's in 2 hours before giving up. It took WD2ABC/QRP more than 10 tries before I could copy the callsign correctly. Still fun. The paddle faded in the first 10 minutes. I would try to clean the contact area with a piece of paper but the key must go.

On 12/12, no fool would even drive a car in the 3/4" hail! No operation. Later went to watch the Borg (Borgette?) deal with the one man Rogain will not claim to help. This is Meridian so when the first reel ran out, we (only 6) had to go find the operator to change the film.

I will do this again on a future trip, after I build a good paddle lite. So now I get to send out about 50 QRP cards for MS and don't have one myself.

Lou Aull AE4JA, Annistown, GA (Atlanta)

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Tom Bowman <tbowman@nbn.net>
Subject: [6381] my brain is fried
Message-ID: <2.2.32.19961213221630.006aed18@nbn.net>

It's been a long week.

In my previous post with the address
of 5-Watt Press, please remove the http:// from
the e-mail address.

Their address is:

qrpbook@aol.com

73,
Tom
WA3REY

Tom Bowman, WA3REY <>< Mount Gretna, PA 17064 tbowman@nbn.net

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: 13-Dec-1996 0800 <randolph@asic.ENET.dec.com>
Subject: [6345] N100Q RX #1: Basic receiver scheme, 1st IF choice
Message-ID: <9612131304.AA20530@us4rmc.pko.dec.com>

No. 1

Let's start with the basic conversion scheme of this RX, and why I did it that way. The design inspirations were the big receiver projects in the ARRL book, "Solid State Design for the Radio Amateur". Get that book if you don't have it. It's a gold mine for the measly \$10 or so. The 160m receiver with band converters in the Advanced Receiver Concepts chapter is the W1FB "His Eminence" receiver. The W7ZOI contest grade CW station is at the back of the book. Both first appeared in QST in the 70s.

I should note that this design isn't really up to the latest and greatest methods of RX design. Quieter and more linear designs exist or are in development by amateurs. Quieter means you hear more signals that are really

there, because the radio doesn't lose them in it's own noise. More linear means that the radio itself generates less signals that aren't really there, because the circuits are designed to enhance only the real signals and to suppress the spurious ones originating in the circuits themselves. Also, this is not going to be a portable radio! It'll probably draw something like 300-500 mA from the 12V supply. It will be a good performer, though (I hope, anyway! The design is entirely on paper at this date.)

I used the W1FB idea of a single-band RX with converters for my RX. This is one method of designing a dual-conversion RX. It's similar to what a transverter does on receive. The first conversion is from whatever band you're listening to, say 20m, to the band of the RX, 32 MHz in my RX. This is an easy way to get any signal in the MF/HF spectrum into your RX. Rather than having to tune all ham bands 1.8-29.7 MHz, the radio only needs to tune a single band, 32 MHz. The band converter for 20m doesn't need to do any tuning. It just converts the whole 20m band, 14.0-14.35 right up to 32.0-32.35, where the radio can tune it. This 32 MHz band is the 1st IF, the 1st intermediate frequency. Any band you want to listen to can be converted to this band, where the radio can easily deal with it.

The selection of what 1st IF freq to use is based on the nature of the circuit used to do the converting - a mixer. Mixers will take any two input frequencies and "mix" them to get two different output frequencies:

$\text{input1} + \text{input2}$, and $\text{input1} - \text{input2}$.

One of these output frequencies is our IF, and the other gets filtered out by the IF circuits, for instance:

$18 + 14 = 32$, $18 - 14 = 4$.

The 18 MHz freq is known as the LO, the local oscillator. Our 20m band module will have an 18 MHz oscillator in it. As I said, the mixer will take ANY two frequencies and mix them to get the output frequencies, so we must ask: Can any other input frequency on our antenna mix with the local oscillator to give us an output at the IF? The answer can be had by adding and subtracting the LO from the IF freq:

$32 - 18 = 14$ MHz, our RF freq
 $32 + 18 = 50$ Mhz

This 50 MHz freq is called the image. A signal at the image freq will be heard in our receiver if we don't filter it out. The filter before the mixer which performs this function is often called the pre-selector. The image rejection of the receiver is the measure of how attenuated this signal will be compared to the signal we want to receive. If we pick a low IF freq, the image will be nearby. Suppose we use 160m, 2 MHz, as the IF, as W1FB did in the "His Eminence" receiver:

Our LO for 20m is: $14-2=12$ MHz

$2+12=14$ MHz, our RF freq

$2-12=-10$ MHz, our image freq

The -10 is valid. The signs don't matter much, because of the +/- nature of the output of the mixer: 12 ± 10 indeed gives us outputs at 2 and 22 MHz. So the image is at 10 MHz - not all that far away from the desired signal at 14 MHz. It's difficult to construct filters that attenuate this image without killing the desired signal. In my RX, the image is at 50 MHz, while the desired signal is at 14 MHz. This is easily filtered without hurting the 14 MHz signal. I expect excellent image rejection on 20m.

Our mixer has two input signals: the LO, and the RF, which is the signal we want to listen to. BOTH of these signals have images, but so far we've only dealt with the LO image. If we take the IF +/- the RF:

$32-14=18$ MHz, our LO

$32+14=46$ MHz, our RF image

This is another frequency we must filter out if we don't want to hear it in our RX. It's right up there with the 50 MHz LO image, so it shouldn't be a problem. Note that this image will only appear if there are incoming signals from the antenna at 14 and 46 MHz at the same time, making it less of a problem than the 50 MHz image, which would appear every time a signal at 50 MHz arrived at the antenna.

There is yet one more thing to think about. What if a signal appears on the antenna at our IF freq, 32 MHz? This could leak through the mixer and right into the radio. If our 1st IF is at an HF freq, it's too near the signals we want to hear to easily filter. Moving the IF up into the VHF range eliminates the problem. IF rejection is another spec you see on radio manufacturer's data sheets, and in magazine test reports.

We now need to filter 32, 46, and 50 MHz when receiving 14 MHz. This is easy: construct a lowpass filter that cuts off at something like 16 MHz. It will have very high attenuation at those freqs. This is why a VHF 1st IF is a good idea. It's easy to get rid of a lot of crud that otherwise would require very tight, hard to build filters on every band module.

I picked this particular VHF frequency because the LO freqs for many of the ham bands will fall on common microprocessor crystal or oscillator freqs, or can be gotten by doubling a microprocessor crystal freq. Only a couple of custom crystals will be needed, for 160m and 80m. Also, 32 MHz isn't too terribly high up in the VHF range, so the actual layout of the 32 MHz circuits won't be too critical. I didn't want to have to deal with chip caps and the like in my 1st IF circuits.

These N100Q RX postings are intended to be a learning exercise for the QRP-L folks, so if you have questions or comments, post them! How's the level of detail? Too much or too little?

```
=====
Tom Randolph  N100Q  NE-QRP 419  QRP-L 87  ARRL      randolph@asic.enet.dec.com
=====
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From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: pmk@juno.com
Subject: [6331] Need help with LPT port pin out (5 volts)
Message-ID: <19961213.030740.4751.0.PMK@juno.com>

Need to know if there is a pin on a LPT port with a supply 5 volts constant ? Can't seem to find any reference book's here with stuff like that in them.

TNX de Patrick KD4OBQ

ar

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: ed.welch@cheaha.com (ED WELCH)
Subject: [6376] number of messages
Message-ID: <8CE11CC.0004000DF5.uuout@cheaha.com>

I changed my settings to receive individual messages and it appears that there's not as many messages coming as were coming in the digest. Anybody else noticed a slack up in mail? Just wondering if I've got a local/individual problem or something. Tnx!

72/73
Ed Welch KF4KRV
QRP-L #873
Luverne, Alabama
Crenshaw County - Grid EM61

```
+-----+
-----+ Norcal 40a es Straight Key es Wire-wrapped Trees +-----
+-----+
```

> Isn't "time" a 4-letter word? <

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Dale Anderson <dalea@artemis.fc.hp.com>
Subject: [6318] QRP brought down Santa???
Message-ID: <9612130010.AA05451@artemis.fc.hp.com>

Hi,

Last night after work, I decided to do some HF. Well imagine my surprise when I closed the CW key and the basement lights rapidly flickered, I heard a clattering sound and the house shook with a thundering WHOOMPH, as tho' someone had dropped a refrigerator on the floor above me. Startled, and giddy from a very long day at work, I debated the possibility that I had just shot down Santa with my mighty 5w signal. That's impossible! I thought, it isn't Christmas Eve! Then what???

Not one to be deterred by a single warning, I removed my headphones and nervously closed the key for about 3 seconds to REALLY listen to what happens. Suddenly, the blower relay on the then-running furnace chattered with the basement lights flickering in sync to the rapidly changing load. That's when the gas burner flamed-out and without the safety tripping, it re-lit in what must have been a gas filled combustion chamber with a loud "WOOMPH" that resonated thru the ductwork and shot quite impressive flames thru seams in the stack! Let me assure you, THAT got me off the key quickly!

This not typical of my installation, I theorized the addition of 760 FEET of xmas lights and cords festively adorning the landscaping 10 yards or less from my dipole must be coupling the RF into the household AC wiring. The high-tech furnace, apparently not immune to the noise went wild. Unplugging the lights and repeating the experiment confirmed my theory. The symptoms had dissapeard. Even with the rig cranked to full QRO, I had no problems. Phew!

So besides; putting massive toroids on the Christmas light cords, unplugging them, shutting off the furnace, or remaining QRT thru the holidays, how can I eliminate this problem?

Tnx es 72 de Dale, KB0VCC
Fort Collins, CO
QRP-L #91 / CQC #251

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Steve Slavsky <sslavsky@CapAccess.org>
Subject: [6337] QRP on 160
Message-ID: <Pine.SUN.3.91-FP.961212234358.12913A-1000000@cap1.capaccess.org>

To the merry goup-

Sometime earlier this week, someone posted a notice that W1BCG, a memorial?? or other type of old time station would be on 160. Just for kicks, I tuned around tonite and there he was - 595 - on 1.812 with a very raspy signal and a pileup. I tried to get him on his QRZ's, but 5 watts to a 100 foot long wire at 25 feet and a fairly bad mismatch wasn't making it. After 20 minutes of failure, I waited until all the hunters had pounced and sent QRP QRP. To my total surprise he returns QRP?. He actually gave me a 599 with peanut power.

I don't know if he was using spark or something to make him sound like spark, but I would like to QSL him. Does anyone have the info on that (do I need an SASE, etc?)? It wasn't as much fun as the Fox, but it sure proved that QRP can get through. I think he was to on through the weekend, so if you have 160 capability, this is a good test of it.

BTW - this was my first ever CW contact on 160 - until last year I never had a rig that could do that band. I did enter the CQ 160 contest last Feb on SSB at QRP levels and just found out that I apparently won the VA certificate for QRP - of course, being the only QRP entry from the state helped a whole lot. The folks on that band really tried hard to work me last year - worked about 20 states (I think) with 5 watts. A lot nicer crowd than when I try one of the all band contests at QRP SSB.

Anyway, if anyone has the info on that station, please e-mail me direct. Thanks and see you on 10 this weekend.

72/73,

Steve, N4EUK
Reston, VA

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "Ralph L. Irons" <rli8m@weyl.math.virginia.edu>
Subject: [6349] QRP SSB & Santa
Message-ID: <Pine.A32.3.93.961213085048.17754A-100000@weyl.math.Virginia.EDU>

On Thursday eveing, I was listening to 20m SSB on the WM-20, and heard a gentleman claiming to be Santa Claus calling for stations with small children in the shack. My kids were visiting friends, so at first I just listened. He was using the call W06T, and had his workshop set up temporarily in Bakersfield, CA. The call was familiar (I used to live in Bakersfield), and as I listened to Santa taking requests for Christmas presents, I dredged the memory banks for the name of the chief elf at W06T -- and finally remembered his name: Mickey.

When he asked for any station to call, I dropped in my call, and he came back to me. That is definitely a distance record so far with the WM-20. (I hoisted a 20m dipole to 30' a couple days ago).

I wonder if Santa QSLs via the bureau?

72, Ralph N7RI
Charlottesville VA

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: lve1@inel.gov (Larry V East)
Subject: [6360] QRP+/QRP++ SSB Questions
Message-ID: <2.2.16.19961213171049.37d732f4@eloi>

I need some help from you QRP+/QRP++ owners out there in cyberspace:

1. Have you measured the total current drain when transmitting in SSB mode with no output (mic gain all the way down)? If so, what value did you get?
2. Have you attempted to adjust the gate bias on the IRF510 final? What were your results?
3. Have you ever looked at the RF output on a 'scope while feeding a two-tone signal into the mic input? If so, what maximum peak power could you get before the output waveshape began to flatten? (On what bands did you look at the SSB output? Did you disable the ALC?)

Any input from the field would be much appreciated so that I can compare

your results with mine. Please indicate whether the measurements were made on an Original QRP+, Upgraded QRP+ or New Improved QRP+ (production version). Thanks in advance.

Please email direct.

72, Larry W1HUE/7

"Any opinions expressed herein are my own and probably do
not agree with those of my employer, the U.S. Government
or my spouse"

--... ..--

Larry V. East (W1HUE)

Idaho Falls, ID

e-mail: LVE1@inel.gov

work: (208) 526-0081 home: (208) 529-2162

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: JEVERHART@cayman.vf.mmc.com

Subject: [6369] Rainbow Bridge/Tuner Manual Outline

Message-ID: <961213144057.20209591@cayman.vf.mmc.com>

Gang,

I've been working away on the Rainbow Bridge/Tuner instruction manual. A copy of the draft outline is attached at the end of this message. At the moment we are awaiting receipt of the pc boards for beta testing and lining up sources for the components.

As most of you know, NJQRP will be kitting the project and we will make an announcement shortly on when we will begin taking orders.

We anticipate the order process beginning in early January and delivery of kits to take place in February - or earlier if we can get things underway.

The Rainbow will be described in an article in the December QRPp and January QRP Quarterly with ordering info, but we expect to jump the gun a little bit, if possible.

72/73,

Joe E., N2CX

work: jeverhart@cayman.vf.mmc.com

home: n2cx@voicenet.com

Rainbow Bridge/Tuner Manual Outline

N2CX 12-13-96

What's Inside

Introduction

Description and Mini-spec

Building the Kit

What's Included

What's Not Included

PC Board Assembly and Soldering Tips

Construction Steps

Testing the Finsihed Board

Inspection

Initial Bench Tests

On-the-Air Testing

When Things Don't Work

Using the Rainbow Bridge/Tuner

Mounting and Enclosure Ideas

Altoids Mint Tin

Other Cabinets

Install inside QRP Rig

Antenna Tuning Notes

1/2 Wave Wire

Counterpoise

Technical Info.

Circuit Description

Specifications

Modification Ideas

Stand-Alone Bridge

Adapting for the Band of Your Choice

Other Tuner Configurations

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: Dan Hogan <dhhogan@lightside.com>

Subject: [6361] RX-URL

Message-ID: <3.0.16.19961213081530.231f6416@mail.lightside.com>

Duane:

Netscape tells me that there is no DNS for - <http://www.flinet.com/~duane>

72/73

Dan Hogan WA6PBY QRP-L #558, CQC #340, NorCal #1806, ARRL
dhhogan@lightside.com Lat. 34d 03.5'N Lon. 117d 56.0'W
Grid: OM84wc

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: jerryh@webzone.net (Jerry Henshaw)
Subject: [6347] Sierra Frequency Drift
Message-ID: <01BBE8C7.F07A3F60@pm2.ppp59.webzone.net>

Hi Gang,

Boy, I've had my share of wierd problems with my Sierra. My RIT circuit =
quit working and I finally (read it to me forever) found the problem --- =
a shorted polystrene capacitor in the VFO circuit. I replaced the =
capacitor and all of a sudden the Sierra started drifting (down in freq) =
about 1 Hz every 2 seconds or so --- A nice band scan feature but no too =
swift if you intend to carry on a long QSO. =20

After replace ALL the polystrene capacitors in the VFO circuit and still =
getting the strange drift -- I finally (read after pulling out what =
little remaining hair I have) found the culprit. The zero adjust trim =
capacitor C52 was slightly loose on its ceramic mounting I noticed if I =
barely moved the mount -- the frequency of the VFO would change --- =
SOLUTION --- I expoxied the cap to the PC board --- no more drift.

This may help so other poor soul out there with a similar problem.

72's

Jerry
KR5L / QRP

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: ji3m@maxwell.com (James R. Duffey)
Subject: [6355] Solar Indices Comments and TypoCorrection

Message-ID: <v02130500aed7223664f3@[192.31.66.229]>

Jim - Thanks for your comments. I notice that you did not send a copy of your note to the list. I am sending a copy of this reply quoting your note to the list as I think your note contains useful information for everybody.

Thanks for the recommendation for NM7M's book. I'll have to get a copy. Do you know who published it? We don't have a ham store here in Albuquerque so I will have to order it or wait until I get to a ham store or hamfest.

There is a mistake in what I posted that I would like to correct here. I wrote;

>The sun has a rotational period of roughly 27 days, varying from 35 days at
>the equator to 35 days at the poles, so one can expect (roughly) that
>conditions will repeat over the 27 day period. When particularly good or
>bad conditions exist you may wish to go to your calender and mark these
>dates 25 to 30 days in the future.

The typo is 35 days at the poles, it should be 25 days at the poles. I apologize for the error. It doesn't make sense the way I wrote it and I am surprised that nobody brought it to my attention. The sun being viscous doesn't rotate with equal angular velocity from equator to pole.

Jim, W7LS's note follows;

>Hi, Jim. Jim W7LS here... Might I also suggest "Little Pistol's Guide To HF
>Propagation" by Bob Brown, NM7M to be added to your suggested reading list.
>It's only \$10 in ham stores. It's new. It goes into the radio physics of
>propagation very well. Bob is a retired physics prof from Berkely.

> Also, and I know you abbreviated the discussion of propagation, but
>the ionization is not a direct function of the solar flux, as the flux is
>measured at 10.7 cm, which is way too low of an energy to ionize any upper
>atmospheric gases. 10.7 cm is chosen only because there is a radio "window"
>there so that solar flux at at least one place can be measured. If the flux
>at 10.7 goes up or down, the really important flux frequencies also go up
>and down roughly the same way. We don't measure the really important flux
>spectrum down here for obvious reasons; it's sucked up in the atmosphere.

This is a good point, but I did not bring it up so as to keep the discussion simple. The flux is used in propagation predictions rather than the sun spot number as it more accurately reflects the ionization potential of the sun than do simple sun spot numbers. I wanted to keep it simple though or I would have ended up writing a book.

> Just my 2 cents worth. I'm still learning and I appreciate your
>bulletin. Please send more! 73 de Jim, W7LS

Again thanks for your comments and It gave me a good way to correct my mistake. Good propagation to all. - Duffey KK6MC/5

James R Duffey KK6MC/5 DM65
30 Casa Loma Road
Cedar Crest, NM 87008

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Scott Rosenfeld NF3I <ham@w3eax.umd.edu>
Subject: [6353] Stuff for sale (radios!)
Message-ID: <Pine.3.89.9612130938.B8962-0100000@w3eax.umd.edu>

Too much stuff, time to purge the ol' shack a little (again)...

- 1) Ten-Tec 11 amp power supply, matches Scout, HEAVY and solid. \$80 new, asking \$65. New condition.
- 2) Scout 80m module, exc. cond. \$29 new, asking \$25 shipped.
- 3) OHR Explorer II for 40m. Have two (one unbuilt, plan to build soon). One for sale is built and tested and working great. Was \$100 new as a kit, since discontinued (aarrggghhh!) by OHR. Asking \$105.
- 4) Kenwood TS-520 80/40/20/15/10m rig, tube finals and driver. Comes with VFO-520 external VFO, SP-520 speaker, and MC-50 desk mic. All in great shape with boxes, cables, and manuals. Runs on 12 VDC too! \$425 for everything.
- 5) Ten-Tec model 238 many kW antenna tuner. Roller inductor, modified L-network, handles 4 antennas, with high-power balun. Perfect condition with manual, box. Sells for \$380 new, asking \$280.

* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
*** 6m 75 grids worked on 8 watts *** HF 138 cfmd * QRP-L #147 ***
** QRP ARCI #9054 ** DXCC/WAS/WAC *** 100% dipole powered HF/6m **
* 301-549-1022 h / 301-982-1015 w *** 145.490- 147.225+ PL 156.7 *

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: QLF@mimi@magic.itg.ti.com
Subject: [6358] THE ARRL HANDBOOK, ETC, ETC, ETC,

Message-ID: <9612131635.AA10784@itg.ti.com>

From: Brad Bradfield QLF

Subj: THE ARRL HANDBOOK, ETC, ETC, ETC,

Good morning QRP folks - - -

I appreciated James Duffey's brief treatise on the use of solar indices. I've been a ham for over 26 years and never paid much attention to them other than to say "What in the world does that mean anyway?"

I wanted to second Duffey's comments on the ARRL Handbook. I am an electrical engineer by education and trade. On my office reference bookshelf I have a 1988 copy of the Handbook, along with a 1981 edition of Bill Orr's Radio Handbook. Both are excellent references that I use regularly.

On my home bookshelf, in addition to several copies the Handbook (back to 1942) and Orr's book, I include such references as Capt Paul Lee's Vertical Antenna Handbook, The ARRL Antenna Handbook, RF Design for the Radio Amateur, and others.

As Duffey said, it's easy (and OK!) to ask, but I learn more if I glean what I can from the available references, then ask for clarification on what I still don't understand.

Y'all have a great weekend.

72's es 73's,

Brad, WB0CGH

Brad Bradfield, PE Electrical Design Engineer
(H) 817-321-2960 Texas Instruments, Inc.
(W) 214-462-6230

Real men talk with their fingers!

QLF@MSG.TI.COM

WB0CGH@W05H.#DFW.TX.USA.NA

ARRL Life Member QRP-L #377 SMIRK #4906 IEEE(M) ARS #72

Collector of wireless and landline Morse keys and accessories.

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: adams@chuck.dallas.sgi.com (chuck adams)

Subject: [6364] The ZEIT by ARCRON

Message-ID: <199612131741.RAA19236@chuck.dallas.sgi.com>

Gang,

The Zeit by ARCRON
A WWV Radio-Controlled Clock
short review by K5FO

FYI: Zeit in German means time.

In the Dec issue of QST, page 124, there is a 2/3 page ad for a WWV clock.

It is 2.60" x 5.30" x 4.45", fairly light (I didn't weigh it), and powered by two AA batteries.

Every Christmas season I go and buy myself something for under \$150 or so. Not that I don't do that the rest of the year but usually just some nice trinket to say that I deserve it for all the hard work, keeping myself off the streets, etc. :-) Wrist watch or whatever. Anything to justify something that just might not be all that useful. This year, the ad from Arcron won. Clock is mfg'd in Germany.

So I got out the plastic money card and called the 800 number in the ad. Delivery in two to three weeks. What is the extra charge for two day? \$6.00. OK, send it.

Yep, two days later here is the box on the front porch.

Kinda neat to open the box and the clock has the time displayed and shows an error of 0 seconds. No assembly, no parts to count, just put it on the table. For the kit addict this is too easy.

A couple of things:

1. The clock is manufactured for use in the USofA as it only displays P,M,C, and E for the appropriate time zones and those are the only ones available on the first line of the display.
2. You can have the second line of the display show any of the 24 time zones, but not in 24 hour format, so you'd have to mentally add the 12 hours for

PM time periods. Otherwise you display the date.

3. It has two alarms and an indicator to show that the clock has received a calibration signal from WWV within a certain time period.

The manual is an idiot's guide to setting up the display, checking for error in time, etc. Nothing to write home about, but really a nice clock if you don't have one around the house that keeps accurate time and keeps going during and after power failures. You can use this one to go around the house and reset all the clocks on the VCRs, microwave ovens, etc. :-) We all wonder why the mfg'r's don't just go ahead and add the extra stuff to battery backup the time/date but know that a penny saved is profit margin.....

No schematic, but one of these days I'm going to take it apart just to look. :-) Receives on the VLF station of WWV. It does calibrate an internal oscillator but no output (thus the reason for looking at the insides to see if it can be brought out) for calibrating freq counters or external devices.

We'll see how long the batteries last. Should be over a year as long as you don't use the internal light to see the time in the middle of the night.

A nice trinket, may be useful to some, but for a ham without the 24 hour format you have to do the work. ;-)

So you are talking about \$150 to \$160, depending upon how fast you want to get it. Someone check out Sharper Image or such stores for an equivalent. I think there is a \$220+ critter that does the same thing but may have the 24 hour format. Remember the Heath clock is \$250 too. Or was.

So you can do the same thing as the Zeit by buying the \$9.95 MFJ clock and listening to WWV aperiodically (you do have a receiver for 10MHz?) to check it out. Am I dreaming or are the TV networks sometimes off on when shows start?

So, if you have everything, here's something to be the first kid on the block to get.

In case someone wonders, it's the only thing I get for

Christmas. Really. Phyllis and I take a short inexpensive trip and then give everything else to the needy. So the purchase of the clock was to do the review and really see if everyone should have one on the desk by the rig. It wasn't an extravagant deed on my part. IMHO. It doesn't count against the homeless and needy.

YAP - yet another project. How about a WWV receiver and a PIC and an osc in a loop to keep in sync? Emulate the GC-1000. Just in case with all the interest in programming PIC processors and looking for things to do with all those parts on the workbench.....

FYI

SIG

Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50

EMPS QS0s=109 STATES(w/c)=34/2 DX=0

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: Lynn Geitgey <lgeitgey@kumc.edu>

Subject: [6330] Winter Hamfest - Ooooppoooo

Message-ID: <s2b073be.000@gw.kumc.edu>

Well fellow QRP'ers, It looks like I goofed up - (Color me red)...

In my post of yesterday re: the St. Joseph WinterFest, I neglected The cardinal rule - Who, What, Where, When. As several readers have pointed out. So without further ado...

Who: All interested Radio Amateurs

What: Hamfest, VE Testing session

Where: Ramada Inn - St Joseph, MO

When: January 18, 1997

Why: Fun and Fellowship

Doors open to the public at 8 am. Talk in: 147.09-

I was aware of St Joseph Michigan, which was the physical home of HeathKit (even though it had a Benton Harbour mailing address).

After reading my own post, I had hoped that the reference to the Pony Express would trigger a memory recall. Oh Well...

Flame retardent suit ON.

72 de kb0lrb
Lynn Geitgey
lgeitgey@kumc.edu
QRP-1 #104 NorCal #399

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Joe Gervais <vole@primenet.com>
Subject: [6323] Re: Fox Report - Novice Tech+
Message-ID: <199612130113.SAA02186@primenet.com>

Howdy!

Brad (KB0ROL) wrote:

>

> 0334 KC7NEV 449 AZ Joe 191 - I copied this the first time and
> it sounded like he wanted a repeat so I asked Joe what he wanted and he
> sent me everything again. THANKS FOR THE EXTRA EFFORT.

Ahh... that explains it. You faded out on the reply and
all I copied was "rpt". Wasn't sure if that meant "report"
or "repeat" (no context due to fading) so figured what the
heck, send again. Thanks for the patience!

> You sure have a BUZZ in your tone. Once I got use to it
> coping you was easy.

Hmmm. I'm hoping I was overloading your front-end with my
mighty 5 watts... Probably not. :-) Thanks, I'll check into
this. Hate to think my trusty ol' QRP+ is misbehaving on me!
"Bad rig! Bad! No biscuit!"

> Thanks again. And Chuck can you really operate a radio or is it all
> voice???

Doh! The Fox is dancing in front of the slaughterhouse!
Man, there's gonna be nothing left but a charred pile
of reddish fuzz up there in C0. 40m may not recover from
the RF overload for weeks. I can't bear to watch.... *8-)

Ho Ho Ho de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: kb0rol@juno.com (Bradley L Mugleston)
Subject: [6334] Re: Fox Report - Novice Tech+
Message-ID: <19961212.211357.7583.0.kb0rol@juno.com>

>> Thanks again. And Chuck can you really operate a radio or is it all
>> voice???

>

>Doh! The Fox is dancing in front of the slaughterhouse!
>Man, there's gonna be nothing left but a charred pile
>of reddish fuzz up there in C0. 40m may not recover from
>the RF overload for weeks. I can't bear to watch.... *8-)

>

I 've got to do something get him on the air. Asking nice doesn't
seem to work - he's probably down to 55 wpm or so. The FOX is out there
wagging his tail but the old hound seems to be chasing his tail.

de
KB0ROL - the FOX

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Bill Myers <bmyers@destin.nfds.net>
Subject: [6322] Re: fox?
Message-ID: <1.5.4.16.19961212190243.0a77c0b4@destin.nfds.net>

At 04:38 PM 12/12/96 -0800, Richard Wilkerson wrote:
>Is the fox on for tonight? 0100-0300?

I believe it's 0300-0500 UTC, 7.040 and down.

72/73

Bill KK4KF

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "KF4MZD (John Kemker)" <kemkerj@xyzzzy.net>
Subject: [6367] Re: FS: TenTec Scout
Message-ID: <9612131932.AA16435@ponyxprs.atlanta.med.va.gov>

On Thu, 12 Dec 1996, KF4MZD (John Kemker) wrote:

> This is a New-In-Box Ten-Tec Scout 555 with the 40-meter module. Run
> it QRP at 5W or QRO at 50W, depending on your mood. This rig has
> NEVER been used. Brand new from Ten-Tec, it goes for \$549, I'll let
> this one go for \$400, I'll pay shipping.
>
> Email me at kemkerj@xyzzy.net if you're interested.
>
>
> =====
> 73 de KF4MZD (John Kemker)
> kemkerj@xyzzy.net
> EM73vt
>
>

I received my first response very soon after sending the message out.
I now have 6 people on the list to purchase and will close it at
that. Thank you everyone for your rapid response! If one of these
six people doesn't buy it, I'll offer it again.

--John K.

=====
73 de KF4MZD (John Kemker)
kemkerj@xyzzy.net
EM73vt

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Arthur Moe <kb7ww@aracnet.com>
Subject: [6327] Re: Handbook Prices
Message-ID: <199612130216.SAA14910@trapdoor.aracnet.com>

At 03:58 PM 12/12/96 -0700, you wrote:

>Chuck - You hit the nail on the head.

>

>>James Duffey hasn't bought a new Handbook in some time. :-)

>

>

>When I was a kid the local Carnegie library had ARRL handbooks going back
>quite a ways. I spent a lot of time reading all of them. In those days,
>1965, the price of a new one was \$4 to \$5 as I recall. I used to drool over
>the \$2.50 and lower price on the old ones. \

Just got a 1946 cover price \$1.00. What is that in 1996 \$

...-.-

AT THE END OF THE OREGON TRAIL

Arthur Moe
A.R.S. KB7WW
QTH: Oregon City, Or.
kb7ww@aracnet.com

ARRL - Life
SMIRK #733
QRP ARCI
QRP-1 #290

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Subject: [6343] Re: Handbook Prices
Message-ID: <Pine.SOL.3.94.961213074512.12937E-100000@utkux4.utcc.utk.edu>

>

> Just got a 1946 cover price \$1.00. What is that in 1996 \$

Unfortunately, one of the things that has gone out of sight is the cost of printing and books. The Handbook price rise from \$1 paper/\$2 hardbound to about \$38 (including disk--it would be about \$32 without, if that were an option) is quite in line with general book prices. My copy of Terman in 1953 was \$15 (and my parents thought that unreasonably high), but similar works are \$75 to over \$100 now.

A Handbook every 3-5 years amounts the the same per year as membership in one of the QRP organizations. Not a bad investment.

But having the Handbook is only one part of the deal. Has anyone read (really read in the sense of being able to take a pop quiz) every page? Of course not (except for 5 known net members). It is a reference for review, new learning, raising knowledge to another level, miscellaneous ideas, etc. Almost encyclopedic--but price any of the encyclopdias these days.

Bread was a dime to my parents, but now it is \$1 to \$2, depending on our taste in levels of fanciness. Gas was \$.20 when I was in the USAF. My new 1964 Valient was \$2500, and my 69 Charger 383 was \$4500 (including finance charges).

If printing prices have gone up faster than these, I am still glad there are such books. But then, know that this is written by a book lover.

-73-

LB, W4RNL

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Monte Stark <ku7y@sage.dri.edu>
Subject: [6325] Re: How I became a ham (lengthy rant)
Message-ID: <Pine.SUN.3.90.961212171257.27459A-100000@vortex.sage.dri.edu>

On Thu, 12 Dec 1996 JCoote@aol.com wrote:

> This was in the late 1960s, before CB was taken over
> by the proletarian masses.

Hmmmmmm, I seem to remember that "they", (the FCC), took away
the 11 meter ham band to make room for a radio service that
everyone could afford!

CB wasn't taken over by the proletarian masses, it was designed
for us! :-)

73, Ron,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Subject: [6344] Re: How is this possible?
Message-ID: <Pine.SOL.3.94.961213075957.12937F-100000@utkux4.utcc.utk.edu>

On Thu, 12 Dec 1996, Vic Rosenthal wrote:

> There's an ad in this month's QST (p. 187) that mentions the Force 12
> model Z-3 vertical antenna for 20/15/10 meters. They claim that it is
> 5'4" tall, has an 'efficiency' of 93%, uses no traps or radials, has no
> power limit and is designed to mount a couple of feet off the ground.
Efficiency with verticals that are ground mounted is usually defined as
the percentage of power going into the antenna and being radiated (however
well or poorly in terms of pattern) against the total power at the
feedpoint. The remainder is lost to various resistive sources. Even the

best radial systems engineered to a level beyond which one cannot go rarely exceed 60% or so at HF and below--and most do not achieve this level.

There is a trick you can do to do a so-called verification of high efficiency: move the feedpoint so that ground is not immediately adjacent. Then all modeling programs that give the figure will jump to a high level, since the power goes into an element that theoretically radiates. However, the pattern may be little different from the ground-mounted version.

Be skeptical of efficiency figures cited in advertisements. Suppose I offered an antenna that was 98-99% efficient. Would you pay \$200 for it. Would you pay \$200 for a dipole? One you can build yourself for a lot less.?

Now there is another non-advertising use of the term efficiency that is often encountered in antenna comparisons. It generally means efficiency relative to a certain operating goal. Since this is a loose term, we must always specify in what way antenna a is more efficient than antenna b. Otherwise, we should discount this usage as well.

This does not mean that you cannot make contacts with the 5'4" tall antenna. It undoubtedly does, if well built, all that a 5'4" tall antenna can do. But remember that no antenna can do magic.

-73-

LB, W4RNL

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [6359] Re: How is this possible?
Message-ID: <199612131713.LAA13312@multi13.netcomi.com>

Vic --

I have seen it, and I spoke with Tom Schiller, Pres. of Force12, about it at Pacificon. It is indeed only 5+ feet tall and it is 4 feet wide. It is essentially a dipole with enormous end loading structures for each band. It is solidly constructed of welded pipe, so the unloaded Q is probably pretty high, which, when combined with its rational radiation resistance (nearer to 50 ohms than 5), could very easily lead to efficiencies near 90%.

Tom makes no claims that it will outperform a proper horizontal antenna at a decent height.

I was intrigued by the idea and worked up a quick model of a similar antenna for 40 meters using EZNEC. Indeed, the model behaves just like a vertical antenna should (for better or worse). It works best mounted within 10 feet of ground.

The rated power limit is 2500 watts, but I think this is limited by the feed line and choke balun. The antenna structure itself could probably handle much more than this. More importantly, the antenna I saw would not be prone to high impedance corrosion faults at joints, which tend to plague QRP operators.

Hope this helps.

Mike K1MG

>
> There's an ad in this month's QST (p. 187) that mentions the Force 12
> model Z-3 vertical antenna for 20/15/10 meters. They claim that it is
> 5'4" tall, has an 'efficiency' of 93%, uses no traps or radials, has no
> power limit and is designed to mount a couple of feet off the ground.
>
> Everything I know about antennas says that this is ridiculous. Has
> anyone seen this antenna?
>
> My guess: it's like the old Joystick - just a pole, maybe with a loading
> coil, end fed through a tuner. I'm not sure how they define
> 'efficiency', though.
>
> Ever looking for a free lunch,
>
> Vic K2VCO

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Martin Squicciarini <skitch@resuba.com>
Subject: [6362] Re: How is this possible?
Message-ID: <Pine.LNX.3.91.961213121845.2187B-100000@resuba.com>

By efficiency do they mean Power out vs. Power in? If so then as Mike said the input impedance of the ant close to 50. I'm not sure how

useful it is when considering different ants. A dummy load is almost 100% efficient :-)

73/73

Martin Squicciarini NR3Z
skitch@resuba.com (home)
msquicci@vf.lmms.lmco.com (work)

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Jim Hydzik <congress@magpage.com>
Subject: [6374] Re: How is this possible?
Message-ID: <199612132026.PAA26731@alaska.magpage.com>

Maybe it's from the old school of precentages:

If power is not dissipated (I_xR Loss), or reflected (wouldn't be if impedance is at 50 ohms) then what's left must be radiated, i.e, 100%. If antenna power efficiency is the ratio if power into a device vs power radiated, then just controlling impedance match and using big conductors (see K1MG's comments) gets one near 100% eff. Yeah, the radiation pattern might be all over the place (read not where you want it) but the Pct of Eff. tells you how well the the losses and impedences are controlled/optimized at a given frequency. This assumes an honorable attempt to reference ones advertizing to the laws of physics :) Not like the stereos of the 70's that put out 100 watts of power and had a 1 amp fuse in the AC line. Gone are the days of the 98% efficient Class A solid state power amp :) No cryogenics mail please.

Jim K3QIO Del. Love that Great Drake sound!
P.S. R-4B's sound better than R-4C's, but you knew that.

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Bob Marsh <bmarsh@hicom.net>
Subject: [6377] Re: Hw much pwr out on HW-8?
Message-ID: <32B1C9E9.4CA5@hicom.net>

Hi Kevin,

I had an HW-8 about a year ago, and if I remember right, it put out from between 1 watt to 2 watts depending on the band. I can't recall what the input power is on that rig, but I think mine was a bit low. There's tons of info on mods, upgrades and repairs available. I had one that

went with the rig when I sold it called the "Hotwater Handbook" or something like that. (jeez, only 48 ant my memory's shot!)

Anyway, I'm sure someone else on the list can help. It's a nice little radio.

72 de Bob/KB2SGM

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: wpc@west.net (John L. Roblin)
Subject: [6332] Re: PIC Training
Message-ID: <v01530503aed67ab54fc5@[205.254.241.11]>

Hi!

I just bought a book called Easy Pic'n available from Square One Electronics 707-279-8881. It is a beginner's guide to programming PIC16CXX microcontrollers. Unfortunately for me, I need to get an old 286 or 386 to program them. I am an avid Macintosh user and am NOT looking forward to learning DOS basics!!! :((Any good books on DOS btw???) But I guess I will have to in order to use the assembler.

Try Square One Electronics: <http://www.zapcom.net/~squareone/index.html>

A detailed description of the book is up there.

(The usual disclaimers of course, no affiliation, etc...)

73/ John

John L. Roblin, WA6KY0 (QRP-L #759)
President
Whiterook Products Company (WPC)
309 South Brookshire Ave.
Ventura, CA 93003-4413
The United States of America

Telephone & Fax: +1-805-339-0702
E-mail: wpc@west.net
World Wide Web Site: <http://www.west.net/~wpc/>

*** Manufacturer of a line of unique Pocket Mini-Keys & Mini-Paddles ***
NEW!!! Check out The QRP T-Shirt now featured on our Web Site!!!

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Bob Hightower <ki7mn@dancris.com>
Subject: [6321] Re: QRP brought down Santa???
Message-ID: <199612130057.RAA27038@dancris.com>

At 05:10 PM 12/12/96 MST, you wrote:
>

> So besides; putting massive toroids on the Christmas light
> cords, unplugging them, shutting off the furnace, or remaining
> QRT thru the holidays, how can I eliminate this problem?
>
>

I would have to opt for leaving the @(#\$*%& lights off!

Got a huge chuckle out of this one.
73,

Bob, KI7MN Chandler, AZ ScQRPion QRP-L #271, NorCal #1228, CQC #274, QRP
ARCI #8918, AK QRP #30, not in any order of importance.

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: wb2vuo@juno.com (William K Hibbert)
Subject: [6326] RE: QRP brought down Santa???
Message-ID: <19961212.203441.4679.0.wb2vuo@juno.com>

>From: Dale Anderson <dalea@artemis.fc.hp.com>
>To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
>Subject: QRP brought down Santa???
>Date: Thu, 12 Dec 96 17:10:55 MST

----- snip

> So besides; putting massive toroids on the Christmas light
> cords, unplugging them, shutting off the furnace, or remaining
> QRT thru the holidays, how can I eliminate this problem?

> Tnx es 72 de Dale, KB0VCC
> Fort Collins, CO

> QRP-L #91 / CQC #251

=====

My first move would be a line filter on the light string(s), and if that didn't work, the toroids on the lights would be next.

Shutting off the lights while operating would be next, followed by the furnace.

Go QRT for the holidays??? NEVER !!!

[My shack is already cold, so what's a little more discomfort ???]

72/73, Keith, WB2VUO, QRP-L #582, scQRP 40, ARRL LM, TS (WNY Section),
VP/BARK,
Trustee, KB2YTW/B 10 Mtr Milliwatting Beacon (250 mW @ 28.2870 MHz)
"In the Depths of the Great Bergen Swamp...FN13ac"

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "John A. Evans - N3Q00" <jaevans@cos.cst.titan.com>
Subject: [6354] Re: QRP on 160
Message-ID: <199612131520.KAA206091@nss2.CC.Lehigh.EDU>

RE: Message from ...

>=20

> Steve, N4EUK

> Reston, VA

Yes, so which of our little QRP rigs can be modified for 160 meters ?? =
!!!

I had heard that Dave Benson's rigs could be modified for 160. Any =
info??

72, n3qoo
john

John A. Evans Chief System Administrator
Office: (719) 528-1800 Titan Client/Server Technologies
Fax: (719) 528-1888 1115 Elkton Dr, Suite 200
email: jaevans@cos.cst.titan.com Colorado Springs, CO 80907-3535

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Scott Rosenfeld NF3I <ham@w3eax.umd.edu>
Subject: [6363] Re: RX-URL
Message-ID: <Pine.3.89.9612131215.D9260-0100000@w3eax.umd.edu>

Netscape is wrong.

Actually, your Domain Name Server, (or "DNS," wherever it happens to be) is wrong. The web page plays a very nice muzak-ified version of the Eagles' "Tequila Sunrise."

"It's another tequila sunrise
and this ol' world still looks the same....
another frame."

* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
*** 6m 75 grids worked on 8 watts *** HF 138 cfmd * QRP-L #147 ***
** QRP ARCI #9054 ** DXCC/WAS/WAC *** 100% dipole powered HF/6m **
* 301-549-1022 h / 301-982-1015 w *** 145.490- 147.225+ PL 156.7 *

On Fri, 13 Dec 1996, Dan Hogan wrote:

> Duane:
>
> Netscape tells me that there is no DNS for - <http://www.flinet.com/~duane>
>
>
>
> 72/73
> Dan Hogan WA6PBY QRP-L #558, CQC #340, NorCal #1806, ARRL
> dhogon@lightside.com Lat. 34d 03.5'N Lon. 117d 56.0'W
> Grid: OM84wc
>
>

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: "John A. Evans - N3Q00" <jaevans@cos.cst.titan.com>
Subject: [6365] Re: RX-URL
Message-ID: <199612131743.MAA34214@nss2.CC.Lehigh.EDU>

>Duane:

>Netscape tells me that there is no DNS for - =

<http://www.flinet.com/~duane>

Give it another try. Sometimes the Internet is sluggish enough to where it will time out. If it repeatedly happens (it worked just now when I tried it), there is probably a problem with your Domain Name Server, = i.e., it is not passing on request for resolution outside of your domain.

If you can get to a Unix prompt on your system (assuming it is some form = of Unix), type the following:

```
nslookup www.flinet.com
```

That should resolve to the proper address as below:

```
acatst01:/t2u4/jaevans 34% nslookup www.flinet.com
Name Server:  tcos123.cos.cst.titan.com
Address:  198.232.129.123
```

Non-authoritative answer:

```
Name:      www.flinet.com
Address:  205.216.85.4
```

```
acatst01:/t2u4/jaevans 35%
```

You can always hardwire, so to speak, the IP address above into your netscape lookup as in <http://205.216.85.4/~duane>

72, n3qoo
john

```
-----
John A. Evans                Chief System Administrator
Office: (719) 528-1800        Titan Client/Server Technologies
Fax:    (719) 528-1888        1115 Elkton Dr, Suite 200
email:  jaevans@cos.cst.titan.com  Colorado Springs, CO 80907-3535
-----
```

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Ken Lopez <kjllopez@earthlink.net>
Subject: [6372] Re: RX-URL
Message-ID: <32B1BE59.5F2E@earthlink.net>

Dan Hogan wrote:

>
> Duane:
>
> Netscape tells me that there is no DNS for - <http://www.flinet.com/~duane>
>
I can access the site, but it never quits loading. An endless loop of
some sort.

Ken

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
From: Ken Lopez <kjlopez@earthlink.net>
Subject: [6373] Re: RX-URL
Message-ID: <32B1BF40.3569@earthlink.net>

>
> You can always hardwire, so to speak, the IP address above into your
> netscape lookup as in <http://205.216.85.4/~duane>
>

I tried this too and it went into the same endless loading routine.

Ken

From owner-qrp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996
Subject: Solar flux and signal strengths

Hi folks:

I hope you don't mind me adding a few thoughts on the recent thread on solar
flux, sunspots and whatnot.

Solar flux is an indication of ionisation levels only, but does not give a
perfect picture of the varying different wavelengths of radiation from the
sun, and the resulting refractive effects and signal absorption. The flux
only approximates these many variables.

Along a given path the ionosphere behaves variably - higher temperatures,
sporadic E and spread F, variable collisional frequencies, electron
densities and so on, change the signal along the way. If collisional and/or
electron densities in the lower ionosphere are higher than "normal",
absorption will be greater and therefore signal strengths will need to be
greater to overcome absorption. Local noise (QRM) and QRN all have to be
overcome as well, and it is not simply doing a FOT/MUF calculation and

expecting to make contacts.

So while one calculate pretty accurately the FOTs for a given path for a given time of year etc, the POWER levels needed to make the contact at whatever frequency one may be using at or near the FOT, or below it, can only be known at the time of transmission. Unhappily we can't calculate what these should be because of the many variables briefly mentioned. So, I make DX contacts every day on 7,14,10, and 18mHz - but none have been QRP because while the

"bands have been open" the bottom line is whether you can hear the other guy, and he can copy you ... what power was necessary to make the QSO.

Sometimes there is a happy combination of these variables such that the QRP DX is possible, but in the present low flux conditions, the ionospheric "mirror" has poor "reflectivity" and more often than not one has to QRO to make it. Simply the MUFs/FOTS/LUFS and so on are calculated using a smoothed SN and are useful for predicting propagation over a given path (using several other factors not mentioned here) - i.e. the useful frequencies - but NOT the POWER one may need to achieve a contact.

So, if 10m is "dead" for you it can be that your receiver/antenna and the other hams' rigs are just not putting out enough power to be heard, while a guy operating a linear and using CW will almost certainly be heard. I often run into this "problem" - for instance, working a guy in Bombay India while another guy in the same city is hardly audible, but both give me the same report.

Wishing everyone a wonderful Festive Season and the best of New Year's.

Best 72/73 De ZS6QL

Roger

spending Christmas at the barbecue in Sunny South Africa

From owner-qrp-l@Lehigh.EDU Fri Dec 13 18:01:16 1996

From: rhight@primenet.com (Roger Hightower)

Subject: [6329] Re: Special event station and "unofficial Fox"

At 09:23 AM 12/12/96 MST, David F. Kurth wrote:

```
>> Don't forget, folks.  Friday night, 12/13/96 listen for N0EL on 7040 and
>> 7110 +/- for the
>> Tri-City Amateur Radio Club annual Christmas, AZ special event station.
```

```
>> QRP only, CW only, and hope to see you all between 1800-1900 MST (0100-0400Z
>> 12/14/96).                ^^^^^^^^^^                ^^^^^^^^^^
```

```
>Are you going to be active for 1 hour or 3 hours?  I'm hoping for 3, because
>I'll never make it home before 1900 MST.
```

Gee, I really blew that one. Three hours (at least), 1800-2100 MST 12/13/96, (0100-0400Z 12/14/96). Might stay on a little later, depending on the traffic.

72/73 de Roger N7KT Mesa, AZ Grid DM43cj

From owner-grp-1@Lehigh.EDU Fri Dec 13 18:01:16 1996

Subject: [6366] Re: The ZEIT by ARCRON

```
>YAP - yet another project.  How about a WWV receiver and
>a PIC and an osc in a loop to keep in sync?  Emulate the
>GC-1000.  Just in case with all the interest in programming
>PIC processors and looking for things to do with all those
>parts on the workbench.....
```

>>>==>PStJTT (KC1TD)